

WHAT IS CLAIMED IS:

1. A print server apparatus capable of receiving
a print job to be printed from an information
processing apparatus through a network, the printer
5 server apparatus comprising:

reservation job management means for storing, in a
memory, reservation job data prepared by uniting print
data to be printed by a printing apparatus and print
job information, received from said information
10 processing apparatus, and managing said reservation job
data even after completion of the printing process by
said printing apparatus; and

output control means for outputting the
reservation job data managed by said reservation job
15 management means to the exterior, according to a
request for re-printing received from said information
processing apparatus.

2. A print server apparatus according to claim 1,
20 wherein said reservation job management means is
adapted to reserve the reservation job data transmitted
from said information processing apparatus for a
designated period and to delete said reservation job
data from said memory after the lapse of said
25 designated period.

3. A print server apparatus according to claim 1,

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further comprising discrimination means for discriminating whether the management of said reservation job data by said reservation job management means is possible, in response to a request for

5 reservation from said information processing apparatus;
wherein said reservation job management means executes reservation and management of said reservation job data in case said discrimination means identifies that the management of said reservation job data is
10 possible.

4. A print server apparatus according to claim 3, wherein, in case said discrimination means identifies that the management of said reservation job data is not
15 possible, said reservation job management means registers and manages the print job ID and the reservation job size, requested for reservation, in a reservation waiting list.

20 5. A print server apparatus according to claim 4, further comprising detection means for detecting a registerable print job ID by comparing the available capacity of said memory with the reservation job sizes registered in said reservation waiting list.

25 6. A print server apparatus according to claim 1, wherein:

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said reservation job management means manages
print data of a device-dependent data format and
intermediate data of a device-independent data format;
and

5 in case the location of printing indicated by a
re-print request received from said information
processing apparatus is a printing apparatus of a type
same as that of the printing apparatus executing the
original printing, said output control means outputs
10 the device-dependent print data managed by said
reservation job management means to the exterior, but,
in case the location of printing indicated by the re-
print request received from said information processing
apparatus is a printing apparatus of a type different
15 from that of the printing apparatus executing the
original printing, said output control means outputs
the device-independent intermediate data managed by
said reservation job management means to the exterior.

20 7. A print server apparatus according to claim 6,
wherein said intermediate data are EMF data and said
print data are RAW data.

25 8. An information processing apparatus for
generating print data to be printed by a printing
apparatus through a network, the information processing
apparatus comprising:

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print data generation means for generating the
print data to be printed by said printing apparatus;

reservation data generation means for generating
reservation job data consisting of said print data and
5 print job information based on said print data and to
be reserved after the completion of the printing
process of said print data by said printing apparatus;
and

transmission control means for transmitting the
10 reservation job data, generated by said reservation
data generation means, to a print job management
apparatus through the network.

9. An information processing apparatus according
15 to claim 8, further comprising condition designation
means for designating a reservation condition for
causing said print job management apparatus to reserve
the reservation job data.

20 10. An information processing apparatus according
to claim 9, wherein said reservation condition is a
period of reservation.

25 11. An information processing apparatus according
to claim 9, wherein said reservation condition is a
number of printing times.

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12. An information processing apparatus according to claim 8, wherein said reservation data generation means generates reservation data including said print data of a device-dependent data format and intermediate data of a device-independent data format.

13. An information processing apparatus according to claim 12, further comprising:

acquisition means for acquiring a list of managed reservation data from said print job management apparatus; and

re-print designation means for designating the reservation data to be re-printed from said acquired list of the reservation data.

14. An information processing apparatus according to claim 13, wherein, in case of receiving the intermediate data from said print job management means according to a re-printing instruction by said re-print designation means, print data generation means corresponding to the printing apparatus to be used for re-printing is selected among plural print data generation means, and the print data for said printing apparatus to be used for re-printing are generated from said intermediate data.

15. An information processing apparatus according

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to claim 14, wherein the print data generated at the re-printing of the intermediate data are reserved again as the reservation job data in said print job management apparatus.

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16. A method for use in a print server apparatus capable of receiving a print job to be printed from an information processing apparatus through a network, the method comprising:

10 a reservation job management step of storing, in a memory, reservation job data prepared by uniting print data to be printed by a printing apparatus and print job information, received from said information processing apparatus, and managing said reservation job data even after completion of the printing process by
15 said printing apparatus; and

an output control step of outputting the reservation job data managed by said reservation job management step to the exterior, according to a request
20 for re-printing received from said information processing apparatus.

17. A method according to claim 16, wherein said reservation job management step is adapted to reserve
25 the reservation job data transmitted from said information processing apparatus for a designated period and to delete said reservation job data from

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said memory after the lapse of said designated period.

18. A method according to claim 16, further comprising a discrimination step of discriminating whether the management of said reservation job data by
5 said reservation job management step is possible, in response to a request for reservation from said information processing apparatus;

wherein said reservation job management step
10 executes reservation and management of said reservation job data in case said discrimination step identifies that the management of said reservation job data is possible.

19. A method according to claim 18, wherein, in
15 case said discrimination step identifies that the management of said reservation job data is not possible, said reservation job management step registers and manages the print job ID and the
20 reservation job size, requested for reservation, in a reservation waiting list.

20. A method according to claim 19, further comprising a detection step of detecting a registerable
25 print job ID by comparing the available capacity of said memory with the reservation job sizes registered in said reservation waiting list.

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21. A method according to claim 16, wherein:
said reservation job management step manages print
data of a device-dependent data format and intermediate
data of a device-independent data format; and
5 in case the location of printing indicated by a
re-print request received from said information
processing apparatus is a printing apparatus of a type
same as that of the printing apparatus executing the
original printing, said output control means outputs
10 the device-dependent print data managed by said
reservation job management means to the exterior, but,
in case the location of printing indicated by the re-
print request received from said information processing
apparatus is a printing apparatus of a type different
15 from that of the printing apparatus executing the
original printing, said output control means outputs
the device-independent intermediate data managed by
said reservation job management means to the exterior.

22. A method according to claim 21, wherein said
20 intermediate data are EMF data and said print data are
RAW data.

23. An information processing method for
25 generating print data to be printed by a printing
apparatus through a network, the method comprising:
a print data generation step of generating the

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print data to be printed by said printing apparatus;

a reservation data generation step of generating reservation job data consisting of said print data and print job information based on said print data and to
5 be reserved after the completion of the printing process of said print data by said printing apparatus;
and

a transmission control step of transmitting the reservation job data, generated by said reservation
10 data generation step, to a print job management apparatus through the network.

24. An information processing method according to claim 23, further comprising a condition designation
15 step of designating a reservation condition for causing said print job management apparatus to reserve the reservation job data.

25. An information processing method according to claim 24, wherein said reservation condition is a
20 period of reservation.

26. An information processing method according to claim 24, wherein said reservation condition is a
25 number of printing times.

27. An information processing method according to

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claim 23, wherein said reservation data generation step generates reservation data including said print data of a device-dependent data format and intermediate data of a device-independent data format.

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28. An information processing method according to claim 27, further comprising:

an acquisition step of acquiring a list of managed reservation data from said print job management apparatus; and

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a re-print designation step of designating the reservation data to be re-printed from said acquired list of the reservation data.

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29. An information processing method according to claim 28, wherein, in case of receiving the intermediate data from said print job management step according to a re-printing instruction by said re-print designation step, print data generation means

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corresponding to the printing apparatus to be used for re-printing is selected among plural print data generation means, and the print data for said printing apparatus to be used for re-printing are generated from said intermediate data.

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30. An information processing method according to claim 29, wherein the print data generated at the

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re-printing of the intermediate data are reserved again as the reservation job data in said print job management apparatus.

5 31. A computer readable memory medium storing a program of a method for use in a print server apparatus capable of receiving a print job to be printed from an information processing apparatus through a network, the program comprising:

10 a reservation job management step of storing, in a memory, reservation job data prepared by uniting print data to be printed by a printing apparatus and print job information, received from said information processing apparatus, and managing said reservation job data even after completion of the printing process by
15 said printing apparatus; and

 an output control step of outputting the reservation job data managed by said reservation job management step to the exterior, according to a request
20 for re-printing received from said information processing apparatus.

 32. A memory medium according to claim 31, wherein said reservation job management step is adapted
25 to reserve the reservation job data transmitted from said information processing apparatus for a designated period and to delete said reservation job data from

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said memory after the lapse of said designated period.

33. A memory medium according to claim 31, the
program further comprising a discrimination step of
5 discriminating whether the management of said
reservation job data by said reservation job management
step is possible, in response to a request for
reservation from said information processing apparatus;
wherein said reservation job management step
10 executes reservation and management of said reservation
job data in case said discrimination step identifies
that the management of said reservation job data is
possible.

34. A memory medium according to claim 33,
15 wherein, in case said discrimination step identifies
that the management of said reservation job data is not
possible, said reservation job management step
registers and manages the print job ID and the
20 reservation job size, requested for reservation, in a
reservation waiting list.

35. A memory medium according to claim 34, the
program further comprising a detection step of
25 detecting a registerable print job ID by comparing the
available capacity of said memory with the reservation
job sizes registered in said reservation waiting list.

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36. A memory medium according to claim 31,
wherein:

5 said reservation job management step manages print
data of a device-dependent data format and intermediate
data of a device-independent data format; and
10 in case the location of printing indicated by a
re-print request received from said information
processing apparatus is a printing apparatus of a type
same as that of the printing apparatus executing the
15 original printing, said output control step outputs the
device-dependent print data managed in said reservation
job management steps to the exterior, but, in case the
location of printing indicated by the re-print request
received from said information processing apparatus is
20 a printing apparatus of a type different from that of
the printing apparatus executing the original printing,
said output control step outputs the device-independent
intermediate data managed in said reservation job
management step to the exterior.

37. A memory medium according to claim 36,
wherein said intermediate data are EMF data and said
print data are RAW data.

25 38. A computer readable memory medium storing a
program of an information processing method for
generating print data to be printed by a printing

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apparatus through a network, the program comprising:

a print data generation step of generating the
print data to be printed by said printing apparatus;

5 a reservation data generation step of generating
reservation job data consisting of said print data and
print job information based on said print data and to
be reserved after the completion of the printing
process of said print data by said printing apparatus;
and

10 a transmission control step of transmitting the
reservation job data, generated by said reservation
data generation step, to a print job management
apparatus through the network.

15 39. A memory medium according to claim 38, the
program further comprising a condition designation step
of designating a reservation condition for causing said
print job management apparatus to reserve the
reservation job data.

20 40. A memory medium according to claim 39,
wherein said reservation condition is a period of
reservation.

25 41. A memory medium according to claim 39,
wherein said reservation condition is a number of
printing times.

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42. A memory medium according to claim 38,
wherein said reservation data generation step generates
reservation data including said print data of a device-
dependent data format and intermediate data of a
5 device-independent data format.

43. A memory medium according to claim 42, the
program further comprising:

an acquisition step of acquiring a list of managed
10 reservation data from said print job management
apparatus; and

a re-print designation step of designating the
reservation data to be re-printed from said acquired
list of the reservation data.
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44. A memory medium according to claim 43,
wherein, in case of receiving the intermediate data
from said print job management step according to a re-
printing instruction by said re-print designation step,
20 print data generation means corresponding to the
printing apparatus to be used for re-printing is
selected among plural print data generation means, and
the print data for said printing apparatus to be used
for re-printing are generated from said intermediate
25 data.

45. A memory medium according to claim 44,

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wherein the print data generated at the re-printing of the intermediate data are reserved again as the reservation job data in said print job management apparatus.

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46. A computer program of a method for use in a print server apparatus capable of receiving a print job to be printed from an information processing apparatus through a network, the program comprising:

10 a reservation job management step of storing, in a memory reservation job data prepared by uniting print data to be printed by a printing apparatus and print job information, received from said information processing apparatus, and managing said reservation job data even after completion of the printing process by
15 said printing apparatus; and

an output control step of outputting the reservation job data managed by said reservation job management step to the exterior, according to a request
20 for re-printing received from said information processing apparatus.

47. A computer program according to claim 46, wherein said reservation job management step is adapted
25 to reserve the reservation job data transmitted from said information processing apparatus for a designated period and to delete said reservation job data from

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said memory after the lapse of said designated period.

48. A computer program according to claim 46,
further comprising a discrimination step of
5 discriminating whether the management of said
reservation job data by said reservation job management
step is possible, in response to a request for
reservation from said information processing apparatus;
wherein said reservation job management step
10 executes reservation and management of said reservation
job data in case said discrimination step identifies
that the management of said reservation job data is
possible.

49. A computer program according to claim 48,
wherein, in case said discrimination step identifies
that the management of said reservation job data is not
possible, said reservation job management step
registers and manages the print job ID and the
20 reservation job size, requested for reservation, in a
reservation waiting list.

50. A computer program according to claim 49, the
program further comprising a detection step of
25 detecting a registerable print job ID by comparing the
available capacity of said memory with the reservation
job sizes registered in said reservation waiting list.

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51. A computer program according to claim 46,
wherein:

5 said reservation job management step manages print
data of a device-dependent data format and intermediate
data of a device-independent data format; and
10 in case the location of printing indicated by a
re-print request received from said information
processing apparatus is a printing apparatus of a type
same as that of the printing apparatus executing the
15 original printing, said output control step outputs the
device-dependent print data managed in said reservation
job management step to the exterior, but, in case the
location of printing indicated by the re-print request
received from said information processing apparatus is
20 a printing apparatus of a type different from that of
the printing apparatus executing the original printing,
said output control step outputs the device-independent
intermediate data managed in said reservation job
management step to the exterior.

52. A computer program according to claim 51,
wherein said intermediate data are EMF data and said
print data are RAW data.

53. A computer program of an information
processing method for generating print data to be
printed by a printing apparatus through a network, the

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program comprising:

a print data generation step of generating the print data to be printed by said printing apparatus;

5 a reservation data generation step of generating reservation job data consisting of said print data and print job information based on said print data and to be reserved after the completion of the printing process of said print data by said printing apparatus; and

10 a transmission control step of transmitting the reservation job data, generated by said reservation data generation step, to a print job management apparatus through the network.

15 54. A computer program according to claim 53, further comprising a condition designation step of designating a reservation condition for causing said print job management apparatus to reserve the reservation job data.

20 55. A computer program according to claim 54, wherein said reservation condition is a period of reservation.

25 56. A computer program according to claim 54, wherein said reservation condition is a number of printing times.

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57. A computer program according to claim 53,
wherein said reservation data generation step generates
reservation data including said print data of a device-
dependent data format and intermediate data of a
5 device-independent data format.

58. A computer program according to claim 57,
further comprising:
an acquisition step of acquiring a list of managed
10 reservation data from said print job management
apparatus; and

a re-print designation step of designating the
reservation data to be re-printed from said acquired
list of the reservation data.

15 59. A computer program according to claim 58,
wherein, in case of receiving the intermediate data
from said print job management step according to a re-
printing instruction by said re-print designation step,
20 print data generation means corresponding to the
printing apparatus to be used for re-printing is
selected among plural print data generation means, and
the print data for said printing apparatus to be used
for re-printing are generated from said intermediate
25 data.

60. A computer program according to claim 59,

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wherein the print data generated at the re-printing of the intermediate data are reserved again as the reservation job data in said print job management apparatus.

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